



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PHILOSOPHICAL TRANSACTIONS.

June, 19. 1671.

The CONTENTS.

A Curious Relation of a Substance found in great quantities in some Mines of Italy, out of which is made a kind of Incombustible both Skin, Paper, and Candle-week. Some Experiments shewing the difference of Ice made without Air, from that which is produced with Air. Extracts of three Letters; one, concerning some Philosophical Inquiries about Spiders, together with a Table of 33 sorts of Spiders to be found in England; as also of a kind of Viviparous Fly: The second, about an Insect feeding upon Henbain, and thereby qualifying in its body the horrid smell of that Plant, and altering it to an Aromatical and agreeable one: The third, containing some Observations of Glow-worms. An Account of some Books: I. Of the USEFULNESS of EXPERIMENTAL NATURAL PHILOSOPHY, the Second Tome, by the Honourable Robert Boyle. II. Enchiridion METAPHYSICUM, sive de REBUS INCORPOREIS Dissertatio, per H. M. Cantabrigiensem. III. Diophanti Alexand. in ARITHMETICORUM Libri sex, cum Commentariis C. G. Bacheti & Observationibus D. P. de Fermat, annexo Doctrina ANALYTICÆ Invento novo. IV. The Prodrômus of a Dissertation concerning a SOLID naturally contained in a SOLID, by Nicol. Stenô. V. Rosetum GEOMETRICUM Thomæ Hobbes Malmesburiensis. An Advertisement concerning an English Impression of Vitruvius.

A Curious Relation, taken out the third Venetian Journal de Letterati, of March 15. 1671; Of a Substance found in great quantities in some Mines of Italy; out of which is made a kind of incombustible both Skin, Paper, and Candle week, together with the Experiments made therein.

Signor Marco Antonio Castagna, Superintendent of some Mines in Italy, hath lighted in one of them upon a great quantity of that Lanuginous Stone, call'd *Amianthus*, which he knows so to prepare, as to render

it so tractable and soft , that it resembleth well enough a very fine Lambs-skin dressed white. He thickens and thins it, to what degree he pleaseth, and thereby maketh it like either to a very white Skin, or to a very white Paper ; both which resists the most violent fire, as hath been experimented several times. First, The Skin was cover'd with kindled coals, whence it took flame , but being taken out after it had been left there a while , the fiery colour presently disappear'd , and it became cold and white again as before; the fire, it seems, passing only thorough, without wasting or altering any thing of it ; whereas some of the hardest and solidest Mettals, as Iron and Copper , reduced to very thin plates , and kept as long in the fire as this substance was, would cast Scales. Again, This Skin being made as thin as Paper, doth not only yeild that ancient and so much admired *Amianthus*, but is also perfecter than that which comes from *Cyprus*, and not inferiour to that, which sometimes, though but seldom, comes out of *China*. This Paper was also tryed in the fire, and there it remained likewise without any visible detriment, or without the least change of its first whiteness, fineness, or softness. Of the same matter this Artist hath wrought a *Week*, never to be consumed as long as 'tis fed, nor altering its quality after the aliment is wasted away. And if that famous and incombustible Oyl were found out again, we read of, this matter would yeild the *Week* for that everlasting Light, so much celebrated by the Antients.

The Inventor promiseth to make further Experiments with this substance, for other discoveries. At the present he is resolved to prepare of it such a quantity of Paper, as may make a Book, and to cover it with the Skin made of the same , and to sew it together with thread made of the same , and to write in it Letters of Gold ; so that such a Book, being made in all the parts of it incombustible , and everlasting against the power and injuries of all the Elements, as being proof against the
strongest

strongest, and not being subject to Corruption from the other, as Water or Air, may deserve (*he saith*) the name of the Book of Eternity.

Some Experiments of Signor Carolo Rinaldini, Philosopher and Mathematician in the University of Padoua; shewing the difference of Ice made without Air, from that which is produced with Air: In the same Venetian Journal.

THERE was taken a Glas-cane, about $1\frac{1}{2}$ of a Florentin *braccia* or Ell, open at one end, of which above one Ell and a quarter was fill'd with Quick-silver, the rest with common water. This open end was shut with a finger, and inverted into a vessel with stagnant Mercury; then removing the finger, the Mercury began to fall out, so that the aggregat of the Quick-silver and water falling, the water remain'd in the upper-part of the inverted cane, now free from Air. This being done, the Cane was thus exposed to the open Air in the Month of *January*, in frosty weather, and in one night the water in it was congealed into Ice of a very good consistence. Afterwards Signor *Rinaldini*, having compared this Ice with that which was produced in the open Air, found, that the Ice in the Cane was in substance altogether like that of Hail, that is, an opaque and whitish Body; whereas that, which was made in the Air, was transparent like Chrystal. Besides, he observed, that the Ice made in the Cane was heavier *in specie* than that in the ambient Air: which he discover'd by putting it into a fluid, which was in *specie* lighter than water, but heavier than Ice made in the open Air; whereby he found, that, whereas the Ice made in the Cane sunk, that in the Air floated therein.

Which Experiment seems not to favour those (*saith the Author*) who esteem, that Ice, made in the common Air, is produced by the extrusion of Air-latitant in the water, and by the resolution of the more subtile parts, receiving in their stead the mixture of terrestrial exha-